

WHAT IS CLAIMED IS

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1. A semiconductor integrated circuit,
comprising:

10 a check unit which compares a value of a
pixel of interest with values of neighboring pixels
contained in an image signal supplied from an image
sensor, and determines based on the comparison
whether the pixel of interest is defective; and

15 a defect correcting unit which corrects
the value of the pixel of interest by using values
of surrounding pixels in response to the
determination by said check unit that the pixel of
interest is defective.

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25 2. The semiconductor integrated circuit as
claimed in claim 1, wherein said check unit
ascertains that the pixel of interest is defective
in response to a detection that the value of the
pixel of interest differs from the values of the
neighboring pixels by more than a predetermined
value.

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35 3. The semiconductor integrated circuit as
claimed in claim 2, wherein said check unit
includes:

a first comparison unit which determines
whether the value of the pixel of interest differs

from the values of the neighboring pixels by more than a first predetermined difference in a first pixel-array direction;

5 a second comparison unit which determines whether the value of the pixel of interest differs from the values of the neighboring pixels by more than a second predetermined difference in a second pixel-array direction;

10 a defect checking unit which ascertains that the pixel of interest is defective if both said first comparison unit and said second comparison unit determine that the value of the pixel of interest differs from the values of the neighboring pixels by more than the respective predetermined differences.

20 4. The semiconductor integrated circuit as claimed in claim 3, wherein said first comparison unit determines whether the value of the pixel of interest differs from an average of the values of the neighboring pixels by more than the first predetermined difference in the first pixel-array direction, and said second comparison unit determines whether the value of the pixel of interest differs from an average of the values of the neighboring pixels by more than the second predetermined difference in the second pixel-array direction.

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5. The semiconductor integrated circuit as claimed in claim 1, wherein said defect correcting

circuit includes:

a corrected-value generating unit which generates a corrected value by correcting the value of the pixel of interest based on an average of the 5 values of the surrounding pixels; and

a switch unit which selects either the corrected value or the image signal from the image sensor in response to the determination by said check unit.

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6. A method of correcting a defect pixel 15 in an image signal supplied from an image sensor, comprising the steps of:

comparing a value of a pixel of interest with values of neighboring pixels contained in the image signal supplied from the image sensor;

20 determining, based on the comparison, whether the pixel of interest is defective; and

correcting the value of the pixel of interest by using values of surrounding pixels in response to the determination that the pixel of 25 interest is defective.

30 7. The method as claimed in claim 6, wherein said step of determining ascertains that the pixel of interest is defective in response to a detection that the value of the pixel of interest differs from the values of the neighboring pixels by 35 more than a predetermined value.

8. The method as claimed in claim 7,
wherein said step of determining includes:

5 a first comparison step of determining
whether the value of the pixel of interest differs
from the values of the neighboring pixels by more
than a first predetermined difference in a first
pixel-array direction;

10 a second comparison step of determining
whether the value of the pixel of interest differs
from the values of the neighboring pixels by more
than a second predetermined difference in a second
pixel-array direction;

15 a step of ascertaining that the pixel of
interest is defective if both said first comparison
step and said second comparison step determine that
the value of the pixel of interest differs from the
values of the neighboring pixels by more than the
respective predetermined differences.

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9. An image processor, comprising:
25 a check unit which compares a value of a
pixel of interest with values of neighboring pixels
contained in an image signal supplied from an image
sensor, and determines based on the comparison
whether the pixel of interest is defective;

30 a defect correcting unit which corrects
the value of the pixel of interest by using values
of surrounding pixels in response to the
determination by said check unit that the pixel of
interest is defective; and

35 a processing unit which processes the
image signal having undergone defect correction by
the defect correcting unit.

10. The image processor as claimed in
claim 9, the processing unit includes at least one
of a RGB conversion unit, a white balancing unit, a
5 contour enhancing unit, a gamma correction unit, and
a format conversion unit.